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**BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES**

Application Number: 09/993,320
Filing Date: November 19, 2001
Appellant(s): LEWIS ET AL.

David N. Fogg
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 27 January 2006 appealing from the Office action mailed 30 August 2005.

**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

**(7) Claims Appendix**

The copy of the appealed claims contained in the Appendix to the brief is correct.

**(8) Evidence Relied Upon**

U.S. Patent 6,175,919 to Ha, U.S. Patent 6,795,912 to Itoh, U.S. Patent 6,654,820 to Ishibashi et al., U.S. Patent 5,245,615 to Treu, "Computer Networks and Internets" by Comer and Applicant's Admitted Prior Art (AAPA).

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

***Claim Rejections - 35 USC § 102***

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

2. Claims 27-29, 32, 75-77 and 79-80 are rejected under 35 U.S.C. 102(e) as being anticipated by Ha, U.S. Patent 6,175,919.

3. Regarding claim 27, Ha teaches a method of operating a communications system comprising:

a. initializing one or more associated communication devices from routines stored on a boot PROM (FR1-FR2, figure 4) of each of the one or more associated communication devices (BIOS ROM, figure 2, wherein PC1-PCn are associated communication devices figure 4, and a plurality of computers are upgraded, col. 5 lines 25-30);

b. receiving a device ID from each of one or more communication devices at a management device (HOST computer, figure 4 and figure 6);

c. receiving a device ID from each of the one or more communication devices (each device transfers a model ID to the host computer, col. 4, lines 50-53 and col. 5, lines 15-16);

d. initiating a firmware upgrade without an administrator (the personal computers request their BIOS to be upgraded col. 4, lines 28-37) based on the device ID of each of the one or more communication devices (upgrade of the BIOS is based according to the ID, col. 4, lines 45-60);

e. selecting a software program (BIOS) associated with the device ID of each of the one or more communication devices that require a firmware upgrade (col. 4, lines 50-60);

f. downloading the software program associated with the device ID to each of the one or more associated communication devices that require a firmware upgrade (col. 4, lines 57-60 and col. 5, line 19-24).

4. Regarding claim 28, Ha taught the method according to claim 27, as described above. Ha further teaches storing the downloaded software program into a RAM memory of each of the one or more communication devices. Ha further teaches a RAM memory coupled to the processor, where the processor stores the downloaded firmware into the RAM memory. Specifically, Ha describes downloading firmware using a floppy disk, while the computer is normal operation, and while the computer is booting. Ha teaches that during the download of firmware from a floppy disk the firmware is downloaded into the RAM of the communication device. Ha describes that during the download of firmware during a boot that firmware is downloaded into "memory". This memory is interpreted to be RAM memory because is not the BIOS ROM, no mention of using the system ROM 11 is suggested. Therefore, downloading software from any source in Ha would follow that the same procedure would be done as taught by the download using a floppy disk. Also, figure shows that the RAMs are the only memories of the communication devices (PC1-PCn) connected to the communication port, implying that the RAM memories would receive the downloaded firmware. Thus, Ha teaches storing the download firmware into a RAM memory.

5. Regarding claim 29, Ha taught the method according to claim 27, as described above. Ha further taught storing the downloaded software program into a non-volatile machine usable storage media of each of the one or more communication devices (written into the BIOS ROM, col. 5, lines 20-24).

6. Regarding claim 32, Ha taught the method according to claim 27, as described above. Ha further teaches updating a repository of software programs stored on the management device (col. 4, lines 20-27 and col. 4, lines 41-53). Specifically, Ha teaches that the communications

management device is used to update (upgrade) the communication devices when requested. It would necessitate that the store of firmware at the communications management device of Ha would need to be updated. If the store of firmware in Ha were not updated the management device of Ha would only be able to perform an update only once and this is not suggested in Ha.

In other words, Ha is directed toward updating firmware at remote computers by a repository on a Host HDD (figure 4) rather than using a floppy disk with updated firmware (col. 1, lines 16-31). Ha further teaches that an advantage of doing so is that it is less time-consuming and does not require using a floppy disk (col. 1, lines 32-39). In order to provide an update from the repository rather than a floppy disk it is necessary that the repository be updated otherwise there would be no way to update the firmware other than a first time, which is clearly not the intent of Ha.

7. Regarding claim 75, Ha teaches a machine-usable medium having machine-readable instructions stored thereon for execution by a processor of a telecommunications management device to perform the method comprising;

a. initializing one or more associated telecommunication devices from routines stored on a boot PROM (FR1-FR2, figure 4) of each of the one or more associated telecommunication devices (BIOS ROM, figure 2, wherein PC1-PCn are associated telecommunication devices figure 4, and a plurality of computers are upgraded, col. 5 lines 25-30);

b. receiving a device ID from each of one or more associated telecommunication devices at a telecommunications management device (HOST computer, figure 4 and figure 6);

c. initiating a firmware upgrade without an administrator (the personal computers request their BIOS to be upgraded col. 4, lines 28-37) based on the device ID of each of the one or more associated telecommunication devices (upgrade of the BIOS is based according to the ID, col. 4, lines 45-60);

d. selecting a firmware program (BIOS) associated with the device ID of each of the one or more telecommunication devices that require a firmware upgrade (col. 4, lines 50-60);

e. downloading the software program associated with the device ID to each of the one or more associated telecommunication devices that require a firmware upgrade (col. 4, lines 57-60 and col. 5, line 19-24).

8. Regarding claim 76, Ha taught the method according to claim 75, as described above. Ha further teaches wherein downloading firmware comprises downloading diagnostic software (BIOS is upgraded, col. 5, lines 17-24). Specifically, the BIOS is upgraded. BIOS contains a POST routine which is diagnostic software that tests a communication device.

9. Regarding claim 77, Ha taught the method according to claim 75, as described above. Ha further teaches updating a repository of software programs stored on the management device (col. 4, lines 20-27 and col. 4, lines 41-53). Specifically, Ha teaches that the telecommunications management device is used to update (upgrade) the telecommunication devices when requested. It would necessitate that the store of firmware at the telecommunications management device of Ha would need to be updated. If the store of firmware in Ha were not updated the management device of Ha would only be able to perform an update only once and this is not suggested in Ha.

In other words, Ha is directed toward updating firmware at remote computers by a repository on a Host HDD (figure 4) rather than using a floppy disk with updated firmware (col.

1, lines 16-31). Ha further teaches that an advantage of doing so is that it is less time-consuming and does not require using a floppy disk (col. 1, lines 32-39). In order to provide an update from the repository rather than a floppy disk it is necessary that the repository be updated otherwise there would be no way to update the firmware other than a first time, which is clearly not the intent of Ha.

10. Regarding claim 79, Ha taught the method according to claim 75, as described above. Ha further teaches storing the downloaded software program into a RAM memory of each of the one or more telecommunication devices. Ha further teaches a RAM memory coupled to the processor, where the processor stores the downloaded firmware into the RAM memory. Specifically, Ha describes downloading firmware using a floppy disk, while the computer is normal operation, and while the computer is booting. Ha teaches that during the download of firmware from a floppy disk the firmware is downloaded into the RAM of the telecommunication device. Ha describes that during the download of firmware during a boot that firmware is downloaded into "memory". This memory is interpreted to be RAM memory because is not the BIOS ROM, no mention of using the system ROM 11 is suggested. Therefore, downloading software from any source in Ha would follow that the same procedure would be done as taught by the download using a floppy disk. Also, figure shows that the RAMs are the only memories of the telecommunication devices (PC1-PCn) connected to the communication port, implying that the RAM memories would receive the downloaded firmware. Thus, Ha teaches storing the download firmware into a RAM memory.

11. Regarding claim 80, Ha taught the method according to claim 27, as described above. Ha further taught storing the downloaded software program into a non-volatile machine usable

storage media of each of the one or more telecommunication devices (written into the BIOS ROM, col. 5, lines 20-24).

***Claim Rejections - 35 USC § 103***

12. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

13. Claims 33 and 78 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha.

14. Regarding claim 33, Ha taught the device according to claim 32, as described above. Ha does not disclose wherein the repository of software programs is updated remotely across a communications link of the communications system. Ha only teaches that the repository is updated.

The examiner takes official notice of updating software across a communications link of the communication system. It is well known to those of ordinary skill in the art that software updated remotely across a communications link provides the advantage of being faster to update. Specifically, no extra media such as floppy disks, CDs, or the like are needed to be sent to remote locations for software updates, which takes time to transport. Software would be available virtually instantaneously over a communications network.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and the knowledge of updating software remotely across a communications link before them at

the time the invention was made, to modify the system of Ha by updating his repository remotely over a communication link of the communication system.

One of ordinary skill in the art would have been motivated to make the modification for the purposes of being able to update the repository of Ha faster as those of ordinary skill understand and appreciate.

15. Regarding claim 78, claim 78 is rejected for the same reasons applied accordingly as set forth in the rejection of claim 33.

16. Claims 1-5, 7, 10, 12-13,15-19, 30, 69-73 and 81 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha, U.S. Patent 6,175,919 in view of Itoh, U.S. Patent 6,795,912.

17. Regarding claim 1, Ha teaches a method of operating a communication device with a boot PROM (BIOS ROM 12, figure 1), comprising:

a. initializing the communication device (general computer system, figures 1 and 2) from routines stored on the boot PROM (col. 5, lines 5-16);

b. reading a device ID indicating a model from the communication device (col. 5, lines 15-16);

c. sending the device ID to a management (host computer) device over a communication link (col. 5, lines 15-16);

d. initiating a firmware upgrade without administrator intervention based on the device ID (the personal computers request the BIOS to be upgraded, col. 4, lines 28-38, and the BIOS is upgraded corresponding to the model IDs);

e. selecting a firmware at the management device (col. 4, lines 54-57);

f. downloading the firmware to the communication device (col. 5, lines 17-19);

g. running the firmware on the communication device (by rebooting the computer, col. 5, lines 23-24).

Ha does not disclose wherein the device ID indicates a revision number from the communication device.

Itoh teaches wherein a device ID indicates a model number and a revision number (model number and version number of BIOS, col. 18, lines 36-42). The system of Itoh is similar to that of Ha in that Itoh also teaches a system that updates firmware for a particular device. As taught by Itoh using both the model number and revision number provides the advantage of determining if the of the firmware is necessary (col. 18, lines 40-42).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Itoh before them at the time the invention was made, to modify the device ID of Ha to include revision number to obtain a device ID indicating a model and a revision number as taught the by Itoh.

One of ordinary skill in the art would have been motivated to make this modification in order to determine to if the update is necessary.

18. Regarding claim 2, Ha together with Itoh taught the method according to claim 1 as described above. Ha further teaches storing the downloaded firmware into a RAM memory (col. 3, lines 58-64, col. 4, lines 57-63, col. 5, lines 18-24 and figure 4). Specifically, Ha describes in one embodiment downloading firmware using a floppy disk, while the computer is normal operation, and while the computer is booting. Ha teaches that during the download of firmware from a floppy disk the firmware is downloaded into the RAM of the communication device. Ha

describes that during the download of firmware during a boot that firmware is downloaded into "memory". This memory is interpreted to be RAM memory because is not the BIOS ROM, no mention of using the system ROM 11 is suggested. Therefore, downloading software from any source in Ha would follow that the same procedure would be done as taught by the download using a floppy disk. Also, figure shows that the RAMs are the only memories of the communication devices (PC1-PCn) connected to the communication port, implying that the RAM memories would receive the downloaded firmware. Thus, Ha teaches storing the download firmware into a RAM memory.

19. Regarding claim 3, Ha together with Itoh taught the method according to claim 1 as described above. Ha further teaches storing the downloaded firmware into a non-volatile machine usable storage media (BIOS ROM, col. 5, lines 22-23).

20. Regarding claim 4, Ha together with Itoh taught the method according to 3 as described above. Ha further teaches wherein the non-volatile machine usable storage media is selected from the group consisting of a flash memory device, an electrically erasable programmable read only memory (EEPROM) device, and a one time programmable (OTP) device (a flash memory device, col. 3, lines 60-61).

21. Regarding claim 5, Ha together with Itoh taught method according to claim 3, as described above. Ha further taught wherein the boot PROM routines are stored on the non-volatile machine usable storage media (the POST routines of the BIOS are executed during the booting of the device, col. 5 lines 5-9).

22. Regarding claim 7, Ha together with Itoh taught the method according to claim 1, as described above. Itoh further teaches sending a version identifier of a stored firmware from a

non-volatile machine usable storage media to the management device (version number is transmitted in order to receive a new BIOS, col. 18 lines 28-36).

23. Regarding claim 10, Ha together with Itoh taught the method according to 1 as described above. Ha further teaches wherein the boot PROM is selected from the group consisting of a flash memory device, an electrically erasable programmable read only memory (EEPROM) device, and a one time programmable (OTP) device (a flash memory device, col. 3, lines 60-61).

24. Regarding claim 12, Ha together with Itoh taught the method according to claim 1 as described above. Ha further teaches wherein downloading firmware comprises downloading diagnostic software (BIOS is upgraded, col. 5, lines 17-24). Specifically, the BIOS is upgraded. BIOS contains a POST routine, which is diagnostic software that tests a communication device.

25. Regarding claim 13, Ha teaches a method of operating a communications management device (Host computer, figure 4), comprising

a. initializing one or more associated communication devices from routines stored on a boot PROM (BIOS ROMs, FR1-FR2, figure 4) of each of the one or more associated communication devices (figure 2, wherein PC1-PCn are associated communication devices figure 4, and a plurality of computers are upgraded, col. 5 lines 25-30);

b. receiving a device ID from each of the one or more associated communication devices (each device transfers a model ID to the host computer, col. 4, lines 50-53 and col. 5, lines 15-16);

c. initiating a firmware upgrade without an administrator (the personal computers request their BIOS to be upgraded col. 4, lines 28-37) based on device ID of each of the one or more associated communications devices (col. 4, lines 45-60);

d. selecting a software program (BIOS) associated with the device ID of each of the one or more associated communication devices that require a firmware upgrade (corresponding BIOS Images col. 4, lines 54-60).

e. downloading the software program associated with the device ID to each of the one or more associated communication devices that require (BIOS is transferred to the communication devices, col. 4, lines 57-60 and col. 5, line 19-24).

Ha does not expressly disclose receiving a device ID from each of the one or more associated communication devices ***to determine whether any of the one or more associated devices require a firmware upgrade*** [emphasis added].

Itoh teaches receiving a device ID (verifying a model and production date) from each of the one or more associated communication devices (computer) to determine whether any of the one or more associated devices require a firmware upgrade (col. 18, lines 36-42). The system of Itoh is similar to that of Ha in that Itoh also teaches a system that updates firmware for a particular device. As taught by Itoh using both the model number and revision number provides the advantage of determining if the of the firmware is necessary thereby reducing any unnecessary downloads (col 18, lines 38-42).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Itoh before them at the time the invention was made, to modify the device ID of Ha to include revision number to obtain a device ID indicating a model and a revision number as taught the by Itoh.

One of ordinary skill in the art would have been motivated to make this modification in order to determine to if the update is necessary thereby reducing any unnecessary downloads.

26. Regarding claim 15, Ha taught the method according to claim 13, as described above. Ha further teaches wherein receiving a device ID from each of the one or more associated communication devices further comprises receiving a device ID that identifies the communication model (col. 4, lines 50-53 and col., lines 15-16).

27. Regarding claim 16, Ha taught the method according to claim 13 as described above. Ha further teaches wherein receiving a device ID from each of one or more communication devices further comprises receiving a device ID that identifies the communication device model (S51 and S64 in figures 5 and 6 respectively along with corresponding text).

Itoh further teaches wherein a device ID indicates a model number and a revision number (model number and version number of BIOS, col. 18, lines 36-42).

28. Regarding claim 17, Ha taught the method according to claim 13, as described above. Ha teaches wherein receiving a device ID from each of the one or more associated communication devices further comprises receiving a device ID that identifies the software program for the communication device (BIOS is downloaded to the communication devices that corresponds to the ID, col. 4, lines 50-57).

29. Regarding claim 18, Ha taught the method according to claim 13, as described above. Ha further teaches wherein receiving a device ID fro each of the one or more communication devices further comprises receiving a device ID that uniquely identifies one or more software routines for the communication device (BIOS is downloaded to the communication devices that corresponds to the IDs, BIOS contains one or more software routines for operating devices, col. 4, lines 54-60).

30. Regarding claim 19, Ha taught the method according to claim 13, as described above. Ha further teaches updating a store of firmware (on the HDD) at the communications management device (col. 4, lines 20-27 and col. 4, lines 41-53). Specifically, Ha teaches that the communications management device is used to update (upgrade) the communication devices when requested. It would necessitate that the store of firmware at the communications management device of Ha would need to be updated. If the store of firmware in Ha were not updated the management device of Ha would only be able to perform an update only once and this is not suggested in Ha.

31. Regarding claim 30, Ha teaches the method according to claim 27, as described above. Ha teaches sending an identifier from a non-volatile machine usable storage media of each of the one or more communication devices to the management device. Ha does not disclose that the identifier is or has a ***version identifier of a stored software program*** [emphasis added].

Itoh teaches wherein a device ID indicates a model number and a revision number (model number and version number of BIOS, col. 18, lines 36-42). The system of Itoh is similar to that of Ha in that Itoh also teaches a system that updates firmware for a particular device. As taught by Itoh using both the model number and revision number provides the advantage of determining if the of the firmware is necessary thereby reducing any unnecessary downloads.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Itoh before them at the time the invention was made, to modify the device ID of Ha to include revision number to obtain a device ID indicating a model and a revision number as taught the by Itoh.

One of ordinary skill in the art would have been motivated to make this modification in order to determine to if the update is necessary thereby reducing any unnecessary downloads.

32. Regarding claim 69, Ha teaches a machine-usable medium having machine-readable instructions stored thereon for execution by a processor of a telecommunication device to perform a method comprising;

a. initializing the telecommunication device (general computer system, figures 1 and 2) from routines stored on the boot PROM (col. 5, lines 5-16);

b. reading a device ID indicating a model from the telecommunication device (col. 5, lines 15-16);

c. sending the device ID to a management (host computer) device over a communication link (col. 5, lines 15-16);

d. initiating a firmware upgrade without an administrator (the personal computers request their BIOS to be upgraded col. 4, lines 28-37) based on the device ID (upgrade of the BIOS is based according to the ID, col. 4, lines 45-60);

e. selecting a firmware for the telecommunications device at the management device (col. 4, lines 54-57);

f. downloading the firmware to the telecommunication device (col. 5, lines 17-19); and

g. running the firmware on the telecommunication device (by rebooting the computer, col. 5, lines 23-24).

Ha does not disclose wherein the device ID indicates a revision number from the communication device.

Itoh teaches wherein a device ID indicates a model number and a revision number (model number and version number of BIOS, col. 18, lines 36-42). The system of Itoh is similar to that of Ha in that Itoh also teaches a system that updates firmware for a particular device. As taught by Itoh using both the model number and revision number provides the advantage of determining if the of the firmware is necessary thereby reducing any unnecessary downloads.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Itoh before them at the time the invention was made, to modify the device ID of Ha to include revision number to obtain a device ID indicating a model and a revision number as taught the by Itoh.

One of ordinary skill in the art would have been motivated to make this modification in order to determine to if the update is necessary thereby reducing any unnecessary downloads.

33. Regarding claims 70-73, Ha together with Itoh taught the claimed method of operating a communication device therefore he also teaches claimed machine-usable medium.

34. Regarding claim 81, Ha teaches a telecommunications device (one of PC1-PCn) having a boot PROM (BIOS ROMs FR1-FRn), a communications interface (communications port, figure 2), a device ID storage media (not explicitly shown but must exist to store model ID that is obtained from the communications device of Ha, col. 4, lines 50-53 and col. 5, lines 15-16), and processor coupled to the boot PROM (CPU, figure 2), the device storage media (not shown but must exist in or for the device to obtained) and the communications interface (logically coupled, figure 2). Ha together with Itoh taught the claimed medium to perform the method, as in claim 69, therefore together they teach the method.

35. Claims 6, 8-9, 11 and 74 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha and Itoh in view of Ishibashi et al., U.S. Patent 6,654,820.

36. Regarding claim 6, Ha together with Itoh taught the method according to claim 3 as described above. Ha further taught wherein the boot PROM routines are stored on the non-volatile machine usable storage media (the POST routines of the BIOS are executed during the booting of the device, col. 5 lines 5-9).

Neither Ha nor Itoh disclose wherein the device ID is stored on the non-volatile machine usable storage media.

Ishibashi teaches a device ID stored on a non-volatile machine usable storage media (the device ID is stored on a BIOS-ROM and managed by a BIOS, col. 6 lines 17-35 and figure 2). Ishibashi teaches a system that is similar to that of Ha in that both systems have a device ID and both use the BIOS for some type of management of the device ID. It appears that the feature of having the device ID stored on the BIOS provides the advantage of easy access to the device ID because the BIOS is used to control hardware. Also, the BIOS-ROM would maintain the information when power is removed allowing the device ID to remain when the power is removed. Further, Ishibashi teaches that the protection of digital contents against improper use is improved (col. 1 lines 43-48 and col. 3, lines 27-35)

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh and Ishibashi before them at the time the invention was made, to modify the BIOS-ROM of Ha to include storing the device ID.

One of ordinary skill in the art would have been motivated to make this modification in order provide easy access to the device ID. This would be especially true when modifying Ha

because only the BIOS-ROM would need to be accessed when booting the computer rather than more than one other memory device holding the information reducing the number of reads during the process, allowing the ID to be retained after power is removed, and improve the protection of digital contents against improper use.

37. Regarding claim 8, Ha together with Itoh taught the method according to claim 1 as described above.

Neither Ha nor Itoh disclose wherein the device ID is read from the machine readable storage media.

Ishibashi teaches wherein a device ID is read from a machine readable storage media (the device ID can be obtained from a machine readable storage media "BIOS-ROM" and managed by a BIOS, col. 6 lines 46-54 and figure 2). Ishibashi teaches a system that is similar to that of Ha in that both systems have a device ID and both use the BIOS for some type of management of the device ID. It appears that the feature of having the device ID stored on the machine readable storage media "BIOS-ROM" provides the advantage of easy access to the device ID because the BIOS is used to control hardware. Further, the BIOS-ROM would maintain the information when power is removed. . Further, Ishibashi teaches that the protection of digital contents against improper use is improved (col. 1 lines 43-48 and col. 3, lines 27-35).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh and Ishibashi before them at the time the invention was made, to modify the machine readable storage media of Ha to include reading the device ID from the machine readable storage media.

One of ordinary skill in the art would have been motivated to make this modification in order provide easy access to the device ID. This would be especially true when modifying Ha because only the machine readable storage media would need to be accessed when booting the computer rather than more than one other memory device holding the information reducing the number of read during the process, allowing the ID to be retained after power is removed, and improve the protection of digital contents against improper use.

38. Regarding claim 9, Ha together with Itoh taught the method according to 8 as described above. Ha further teaches wherein the ID storage device is selected from the group consisting of a flash memory device, an electrically erasable programmable read only memory (EEPROM) device, and a one time programmable (OTP) device (a flash memory device, col. 3, lines 60-61).

39. Regarding claim 11, it is rejected for the reasons set forth in the rejection of claim 6.

40. Regarding claim 74, Ha together with Itoh taught the claimed method of operating a communication device therefore he also teaches claimed machine-usable medium.

41. Claims 14 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ha together with Itoh in view of Treu, U.S. Patent 5,245,615.

42. Regarding claim 14, Ha together with Itoh taught the method according to claim 13, as described above. Ha does not disclose receiving a device ID that uniquely identifies the communication device.

Treu teaches a communication device (a personal computer 10, figure 1) having an ID that uniquely (system unique ID, col. 6, lines 51-55) identifies the communication device. Like Ha and Itoh, the communication device of Treu is a personal computer. Also like Ha and Itoh,

Treu uses model number for device identification. Treu further teaches having a device ID that uniquely identifies a communication device has the advantage of identifying the device for maintenance tracking and resource characteristics of functions associated with the communication device.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh and Treu before them at the time the invention was made, to modify the device ID of Ha to include a device ID that uniquely identifies the communication device as taught by Treu.

One of ordinary skill in the art would have been motivated to make the modification in order to achieve the advantage of identifying the device for maintenance tracking and resource characteristics of functions associated with the communications device.

43. Claim 31 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ha in view of Ishibashi et al., U.S. Patent 6,654,820.

44. Regarding claim 31, Ha taught the device according to claim 27, as described above. Ha does not disclose wherein the boot PROM and the device ID are stored on a single machine-readable storage medium.

Ishibashi teaches a device ID stored on a non-volatile machine usable storage media on which the boot PROM is also located (the device ID is stored on a BIOS-ROM and managed by a BIOS, col. 6 lines 17-35 and figure 2). Ishibashi teaches a system that is similar to that of Ha in that both systems have a device ID and both use the BIOS for some type of management of the device ID. It appears that the feature of having the device ID stored on the BIOS provides the advantage of providing fast and easy access to the device ID because the BIOS is the used to

control hardware and is the first firmware used when the activating the communication device. Further, the BIOS-ROM would maintain the information when power is removed. Further, Ishibashi teaches that the protection of digital contents against improper use is improved (col. 1 lines 43-48 and col. 3, lines 27-35).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh and Ishibashi before them at the time the invention was made, to modify the BIOS-ROM of Ha to include storing the device ID.

One of ordinary skill in the art would have been motivated to make this modification in order provide easy access to the device ID. This would be especially true when modifying Ha because only the BIOS-ROM would need to be accessed when booting the computer rather than more than one other memory device holding the information reducing the number of reads during the process, allowing the ID to be retained after power is removed, and improve the protection of digital contents against improper use.

45. Claims 20-22 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha in view of Itoh and Applicant's Admitted Prior Art (AAPA).

46. Regarding claim 20, Ha teaches a method with a management card (on the Host computer, figure 4) and at least one communication card (card on the personal computer, figure 4) comprising:

a. initializing one or more associated communication devices from routines stored on a boot PROM (FR1-FR2, figure 4) of each of the one or more associated communication

devices (BIOS ROM, figure 2, wherein PC1-PCn are associated communication devices figure 4, and a plurality of computers are upgraded, col. 5 lines 25-30);

b. receiving a device ID from to at least one communications card (each device transfers a model ID to the host computer, col. 4, lines 50-53 and col. 5, lines 15-16);

c. initiating a firmware upgrade without an administrator (the personal computer request their BIOS to be upgraded col. 4, lines 28-37) based on the device ID of each of the at least one communication card (col. 4, lines 45-60);

d. selecting a firmware program (BIOS) associated with the device ID of each of the at least one associated communication card that require a firmware upgrade (col. 4, lines 54-60);

e. downloading the software program associated with the device ID to each of the at least one associated communication card that requires a firmware upgrade(col. 4, lines 57-60 and col. 5, line 19-24).

Ha does not disclose that the management card is with a rack chassis. Ha also does not expressly disclose receiving a device ID from the at least one communication card ***to determine whether any of the one or more associated devices require a firmware upgrade*** [emphasis added].

AAPA teaches that rack chassis are popular in network systems where multiple communication links end and provide the advantage of having density and central management capability of a line card chassis (paragraph 0003 and 0007).

It would have been obvious to one of ordinary skill in the art, having the teaching of Ha and AAPA before them at the time the invention was made, to modify Ha to be used in a rack chassis environment as taught by AAPA, wherein the system is a communications rack chassis.

One of ordinary skill would have made the modification because rack chassis are popular in network systems and provide the advantage of having density and central management.

Itoh teaches receiving a device ID (verifying a model and production date) from each of the one or more associated communication devices (computer) to determine whether any of the one or more associated devices require a firmware upgrade (col. 18, lines 36-42). The system of Itoh is similar to that of Ha in that Itoh also teaches a system that updates firmware for a particular device. As taught by Itoh using both the model number and revision number provides the advantage of determining if the of the firmware is necessary thereby reducing any unnecessary downloads (col 18, lines 38-42).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Itoh before them at the time the invention was made, to modify the device ID of Ha to include revision number to obtain a device ID indicating a model and a revision number as taught the by Itoh.

One of ordinary skill in the art would have been motivated to make this modification in order to determine to if the update is necessary thereby reducing any unnecessary downloads.

47. Regarding claim 21, Ha taught the method according to claim 20, as described above. Ha further teaches storing the downloaded software program into a RAM memory of each of the one or more communication devices. Ha further teaches a RAM memory coupled to the processor, where the processor stores the downloaded firmware into the RAM memory. Specifically, Ha

describes downloading firmware using a floppy disk, while the computer is normal operation, and while the computer is booting. Ha teaches that during the download of firmware from a floppy disk the firmware is downloaded into the RAM of the communication device. Ha describes that during the download of firmware during a boot that firmware is downloaded into "memory". This memory is interpreted to be RAM memory because is not the BIOS ROM, no mention of using the system ROM 11 is suggested. Therefore, downloading software from any source in Ha would follow that the same procedure would be done as taught by the download using a floppy disk. Also, figure shows that the RAMs are the only memories of the communication devices (PC1-PCn) connected to the communication port, implying that the RAM memories would receive the downloaded firmware. Thus, Ha teaches storing the download firmware into a RAM memory.

48. Regarding claim 22, Ha taught the method according to claim 20, as described above. Ha further taught storing the downloaded software program into a non-volatile machine usable storage media of each of the one or more communication devices (written into the BIOS ROM, col. 5, lines 20-24).

49. Regarding claim 23, Ha together with AAPA taught the method according to claim 20, as described above.

Ha does not disclose sending a version identifier of stored firmware from a non-volatile machine usable storage media of each of the at leas one communication card to the management card.

Itoh teaches sending a version identifier of stored firmware from a non-volatile machine usable storage media of each of the at leas one communication card to the management card (model number and version number of BIOS, col. 18, lines 36-42).

50. Regarding claim 25, Ha taught the method according to claim 20, as described above. Ha further teaches updating a repository of software programs stored on the management device (col. 4, lines 20-27 and col. 4, lines 41-53). Specifically, Ha teaches that the communications management device is used to update (upgrade) the communication devices when requested. It would necessitate that the store of firmware at the communications management device of Ha would need to be updated. If the store of firmware in Ha were not updated the management device of Ha would only be able to perform an update only once and this is not suggested in Ha. Ha does expressly disclose wherein the repository is on a management card. Specifically, Ha discloses that repository is on the management device as a hard disk drive. In other words, Ha is directed toward updating firmware at remote computers by a repository on a Host HDD (figure 4) rather than using a floppy disk with updated firmware (col. 1, lines 16-31). Ha further teaches that an advantage of doing so is that it is less time-consuming and does not require using a floppy disk (col. 1, lines 32-39). In order to provide an update from the repository rather than a floppy disk it is necessary that the repository be updated otherwise there would be no way to update the firmware other than a first time, which is clearly not the intent of Ha.

51. Regarding claim 26, Ha taught the device according to claim 25, as described above. Ha does not disclose wherein the repository of software programs is updated remotely across a communications link of the communications system. Ha only teaches that the repository is updated.

The examiner takes official notice of updating software across a communications link of the communication system. It is well known to those of ordinary skill in the art that software updated remotely across a communications link provides the advantage of being faster to update. Specifically, no extra media such as floppy disks, CDs, or the like are needed to be sent to remote locations for software updates, which takes time to transport. Software would be available virtually instantaneously over a communications network.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and the knowledge of updating software remotely across a communications link before them at the time the invention was made, to modify the system of Ha by updating his repository remotely over a communication link of the communication system.

One of ordinary skill in the art would have been motivated to make the modification for the purposes of being able to update the repository of Ha faster as those of ordinary skill understand and appreciate.

52. Claim 24 is rejected under 35 U.S.C. 103(a) as being unpatentable over Ha and Applicant's Admitted Prior Art (AAPA) and Itoh in further view Ishibashi.

53. Regarding claim 24, Ha together with AAPA taught the method according to claim 20 as set forth hereinabove. Ha together with AAPA and Itoh do not disclose wherein the boot PROM and the device ID are stored on a single machine readable storage medium of each of the at least one communication card.

Ishibashi teaches a device ID stored on a non-volatile machine usable storage media on which the boot PROM is also located (the device ID is stored on a BIOS-ROM and managed by

a BIOS, col. 6 lines 17-35 and figure 2). Ishibashi teaches a system that is similar to that of Ha in that both systems have a device ID and both use the BIOS for some type of management of the device ID. It appears that the feature of having the device ID stored on the BIOS provides the advantage of providing fast and easy access to the device ID because the BIOS is the used to control hardware and is the first firmware used when the activating the communication device. Further, the BIOS-ROM would maintain the information when power is removed. Further, Ishibashi teaches that the protection of digital contents against improper use is improved (col. 1 lines 43-48 and col. 3, lines 27-35).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh and Ishibashi before them at the time the invention was made, to modify the BIOS-ROM of Ha to include storing the device ID.

One of ordinary skill in the art would have been motivated to make this modification in order provide easy access to the device ID. This would be especially true when modifying Ha because only the BIOS-ROM would need to be accessed when booting the computer rather than more than one other memory device holding the information reducing the number of reads during the process, allowing the ID to be retained after power is removed, and improve the protection of digital contents against improper use.

54. Claims 34-37 and 39-40 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha in further view Itoh and Comer, "Computer Networks and Internets".

55. Regarding claim 34, Ha teaches a method of operating a communication device with a boot PROM (BIOS ROM 12, figure 1), comprising

a. initializing the communication device (general computer system, figures 1 and 2) from routines stored on the boot PROM (col. 5, lines 5-16);

b. reading a device ID indicating a model from the communication device (col. 5, lines 15-16);

c. sending the device ID to a management (host computer) device over a communication link (col. 5, lines 15-16);

d. initiating a firmware upgrade without an administrator (the personal computers request their BIOS to be upgraded col. 4, lines 28-37) based on the device ID (col. 4, lines 45-60);

e. selecting a firmware for the communication device at the management device (col. 4, lines 54-57);

f. teaches downloading the firmware to the communication device (col. 5, lines 17-19);

g. running the firmware on the communication device (by rebooting the computer, col. 5, lines 23-24).

Ha does not disclose wherein the device ID indicates a revision number from the communication device.

Itoh teaches wherein a device ID indicates a model number and a revision number (model number and version number of BIOS, col. 18, lines 36-42). The system of Itoh is similar to that of Ha in that Itoh also teaches a system that updates firmware for a particular device. As taught by Itoh using both the model number and revision number provides the advantage of determining if the of the firmware is necessary (col. 18, lines 38-42).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Itoh before them at the time the invention was made, to modify the device ID of Ha to include revision number to obtain a device ID indicating a model and a revision number as taught the by Itoh.

One of ordinary skill in the art would have been motivated to make this modification in order to determine to if the update is necessary.

Ha also does not disclose wherein the communication device is an asymmetrical digital subscriber line (ADSL) communication device.

Comer teaches that an ADSL communication device would provide the advantage for typical users that receive more information than they send page 156, fourth and fifth paragraph, resulting in optimized data transfer.

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Comer before them at the time the invention was made to modify Ha to use an ADSL communication device as his communication device.

One of ordinary skill in the art would have been motivated to make the modification in order to optimize data transfer for users that typically receive much more information than they receive resulting in optimized data transfer.

56. Regarding claim 35, Ha together with Itoh and Comer taught the method according to claim 34 as described above. Ha further teaches storing the downloaded firmware into a RAM memory (col. 3, lines 58-64, col. 4, lines 57-63, col. 5, lines 18-24 and figure 4). Specifically, Ha describes downloading firmware using a floppy disk, while the computer is normal operation, and while the computer is booting. Ha teaches that during the download of firmware from a

floppy disk the firmware is downloaded into the RAM of the communication device. Ha describes that during the download of firmware during a boot that firmware is downloaded into "memory". This memory is interpreted to be RAM memory because is not the BIOS ROM, no mention of using the system ROM 11 is suggested. Therefore, downloading software from any source in Ha would follow that the same procedure would be done as taught by the download using a floppy disk. Also, figure shows that the RAMs are the only memories of the communication devices (PC1-PCn) connected to the communication port, implying that the RAM memories would receive the downloaded firmware. Thus, Ha teaches storing the download firmware into a RAM memory.

57. Regarding claim 36, Ha together with Itoh and Comer taught the method according to claim 34 as described above. Ha further teaches storing the downloaded firmware into a non-volatile machine usable storage media (BIOS ROM, col. 5, lines 22-23).

58. Regarding claim 37, Ha together with Itoh and Comer taught the method according to claim 34, as described above. Itoh further teaches sending a version identifier of a stored firmware from a non-volatile machine usable storage media to the management device (version number is transmitted in order to receive a new BIOS, col. 18 lines 28-36).

59. Regarding claim 39, Ha together with Itoh and Comer taught the method according to claim 34, as described above. Ha teaches wherein the device ID identifies a model of the ADSL communication device (Ha, col. 5, lines 15-16) and Itoh teaches wherein a model and revision of the ADSL device (Itoh, col. 18, lines 36-42).

60. Regarding claim 40, Ha together with Itoh and Comer taught the method according to claim 34 as described above. Itoh further teaches wherein sending the device ID to a

management device over a communications link further comprises sending the device ID and configuration information. Wherein a revision as disclosed by Itoh contains information a the configuration and is thus configuration information.

61. Claims 38 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ha, Itoh and Comer, "Computer Networks and Internets" in further view of Ishibashi.

Neither Ha nor Itoh nor Comer discloses wherein the boot PROM and device ID are stored on a single machine readable storage medium of the ADSL communication device.

Ishibashi teaches a device ID stored on a single machine readable storage media with the boot PROM (the device ID is stored on a machine readable storage media "BIOS-ROM" which is a boot PROM and managed by a BIOS, col. 6 lines 17-35 and figure 2). Ishibashi teaches a system that is similar to that of Ha in that both systems have a device ID and both use the boot PROM for some type of management of the device ID. It appears that the feature of having the device ID stored on the machine readable storage media provides the advantage of easy access to the device ID because the BIOS on the machine readable storage media is used to control hardware. Also, the machine readable storage media would maintain the information when power is removed. Further, Ishibashi teaches that the protection of digital contents against improper use is improved (col. 1 lines 43-48 and col. 3, lines 27-35).

It would have been obvious to one of ordinary skill in the art, having the teachings of Ha, Itoh and Ishibashi before them at the time the invention was made, to modify the boot Prom BIOS-ROM of Ha to include storing the device ID.

One of ordinary skill in the art would have been motivated to make this modification in order provide easy access to the device ID. This would be especially true when modifying Ha because only the boot PROM would need to be accessed when booting the computer rather than more than one other memory device holding the information reducing the number of reads during the process, allowing the ID to be retained after power is removed, and improve the protection of digital contents against improper use.

**(10) Response to Argument**

1. Apellant argues in substance, with regard to claims 27 that Ha fails to teach or suggest "initiating a firmware upgrade without an administrator based on the device ID of each of the one or more communication devices." The Examiner disagrees. Ha teaches, at col. 6, lines 5-30, "initiating a firmware upgrade without an administrator based on the device ID of each of one or more communication devices." Ha discloses at col. 6, lines 5-30:

> Referring to FIG. 6, in the process of ***upgrading the BIOS*** executed in the ***personal computer*** which requested the BIOS to be upgraded, ***when the personal computer is booted*** in step S60, the power-on self-test (POST) of the BIOS is started in step S61. In step S62, a check is made as to whether the BIOS is connected to the host computer (HOST). If not, the process proceeds to step S70 and normal power-on self-test is continued. When it is determined in step S62 that the personal computer is connected to the host computer (HOST), the host computer (HOST) is requested to upgrade the BIOS in step S63. ***Then, in step 64, the model ID is transferred to the host computer (HOST)***.
>
> In step S65, the corresponding BIOS image and BIOS upgrade software are received from the host computer (HOST) and are stored in the memory. In step S66, the BIOS upgrade software stored in the memory is driven. In step S67, the existing BIOS stored in the BIOS ROM is removed by clearing the BIOS ROM. In step S68, the BIOS image is written into the BIOS ROM. In step S69, the ***upgrade is completed by rebooting the computer***.
>
> As mentioned above, according to the method for upgrading the BIOS using the serial communication according to the present invention, it is possible to save time and to collectively upgrade the BIOS's of a plurality of computers by upgrading the BIOS of the computer using the serial communication ***without using a floppy disk***.

Specifically, Ha discloses that when a communication device (personal computer) is booted it requests to a management device ("HOST computer") to upgrade the firmware ("BIOS"; firmware is known in the art as hardware device and computer instructions residing in a read-only memory, BIOS is hardware device and computer instruction in a read-only memory, thus BIOS is firmware) (col. 5, lines 5-15). The device ID (model ID) of the communication device is then transferred to the management device (col. 5, lines 15-16). After the management device receives the ID the firmware for the communication device is upgraded (col. 5, lines 17-19). As can be seen, there is no administrator used to initiate the firmware upgrade based on the device ID of each of one or more communication devices. The firmware upgrade that is sent form the management device is corresponding firmware (col. 5, lines 18-20). As defined by Ha in an earlier portion of '919, the firmware upgrade ("BIOS upgrade") is based on the device ID ("model ID") (col. 4, lines 54-57). As shown in Ha, there is no administrator involved in the initiating a firmware upgrade for a device using the device ID for one or more communication devices, that is, in Ha the firmware upgrade is automatically initiated when a computer is turned on ("booted"). Thus, Ha teaches, as per the claimed invention, "initiating a firmware upgrade without an administrator based on the device ID of each of one or more communication devices."

2. Appellant argues in substance, with regard to claims 28, 29 and 32, that they depend from claim 27 and relies on the same arguments as those with respect to claim 27. The examiner, as set forth hereinabove, disagrees with arguments of the Appellant. Therefore, claims 28, 29 and 32 are rejected for the same reason as set forth in the rejection and response to arguments of claim 27.

3. Appellant argues in substance, with regard to claim 75, that claim 75 is directed to a machine-usable medium having machine-readable instructions stored thereon for execution by a processor of a telecommunications management device to perform a method and also relies on the same arguments with respect to claim 27. As such, the Appellant has not specifically argued claim 75 and relies upon the argument of claim 27. Ha teaches a telecommunications management device to perform the method (the computers, the HOST and PC1-PCn of Ha, are telecommunications devices since they are involved in the transmission of information from one point to another). Further, the Examiner disagrees with the Appellant's arguments. Claim 75 is rejected for the reasons as set forth in the rejection and response to arguments set forth hereinabove for claim 27.

4. With regard to claims 76, 77, 79 and 80, Appellant has not specifically argued claims 76, 77, 79 and 80, and relies upon the same argument set forth with respect to claim 75. Further, the examiner disagrees with the Appellant's arguments. As such, claims 76, 77, 79 and 80 are rejected for the same reasons set forth in the rejection and response to arguments set forth for claim 75.

5. Regarding claim 33, Appellant states that claim 33 is further directed to "wherein [the] repository of firmware is updated and remotely updated across a communication link". Appellant has not specifically argued claim 33 and relies upon the same argument set forth with respect to claim 27. Claim 33 was rejected as set forth hereinabove using Official Notice. The examiner disagrees with the Appellant's arguments. As such, claim 33 is rejected for the same reasons set forth in the rejection and response to arguments set forth for claim 27.

6. Regarding claim 78, Appellant states that claim 78 is further directed to "wherein [the] repository of firmware is updated and remotely updated across a communication link". Appellant has not specifically argued claim 78 and further relies upon the same argument set forth with respect to claim 75. Claim 78 is rejected for the same reasons as set forth hereinabove in the rejection of claim 33. Examiner further disagrees with the Appellant's arguments with respect to claim 75. As such, claim 78 is further rejected for the same reasons set forth in the rejection and response to arguments set forth for claim 75.

7. Regarding claim 1, Appellant argues that neither Ha nor Itoh teach "initiating a firmware upgrade without an administrator intervention based on the device ID". The Examiner respectfully disagrees. As shown above in the rejection of claim 27 and the response to the arguments of claim 27, Ha does in fact teach "initiating a firmware upgrade without an administrator intervention based on the device ID".

8. Further regarding claim 1, Appellant argues that Itoh teaches away from the present invention because it uses an administrator. The examiner does not agree. Itoh is not relied upon to teach "initiating a firmware upgrade without an administrator intervention based on the device ID". Itoh is relied upon to teach the limitation of a "device ID indicating a model and revision for a device". Ha, as set forth hereinabove in the rejection and response to arguments for claim 27 teaches "initiating a firmware upgrade without an administrator intervention based on the device ID". Therefore, Itoh does not teach away from the present invention.

9. Regarding claims 2-5, 7, 10, and 12, Appellant's arguments rely upon the argument of claim 1. As such, claims 2-5, 7, 10, and 12 are rejected for the same reasons as set forth in the rejection and response to arguments for claim 1.

10. Regarding claim 13, Appellant states that claim 13 is directed to a method of operating a communications management device. Applicant has not specifically argued claim 13 and relies upon claim the arguments of claim 1. Therefore, claim 13 is rejected for the same reason as set forth for claim 1. Further, Ha teaches a method of operating a communications management device. The communications management device of Ha is HOST computer in figure 4. The HOST computer of Ha manages the updating the firmware of PC1-PCn (the upgrade software is received from the HOST, col. 5, lines 5-24). Therefore, the HOST computer is a communications management device.

11. Regarding claim 15 and 17-19, Appellant relies upon the arguments of claim 13. As such, claims 15 and 17-19 are rejected for the same reasons and response to arguments as set forth in the rejection of claim 13.

12. Regarding claim 30, Appellant relies upon the arguments of claim 27. As such, claim 30 is rejected for the same reasons and response to arguments as set forth in the rejection of claim 27.

13. Regarding claim 69, Appellant states that claim 69 is directed to a machine-usable medium having machine-readable instructions store thereon for execution of a processor of a telecommunications device to perform the method. Appellant does not specifically argue claim 69 and relies upon the argument of claim 1. As set forth hereinabove, Ha together with Itoh teaches a machine-usable medium having machine-readable instructions store thereon for execution of a processor of a telecommunications device to perform the method. Furthermore, claim 69 is rejected for the same reasons set forth for the rejection of claim 1.

14. Regarding claims 70-73, Appellant does not specifically argue claims 70-73 and relies upon the argument of claim 69. As such, claims 70-73 are rejected for the same reasons as set for the rejection of claim 69.

15. Regarding claim 81, Appellant does not specifically argue claim 81 and relies upon the argument of claim 1. Futhermore, claim 81 is rejected by Ha in view of Itoh above. As such, claim 81 is rejected for the same reasons as set for the rejection of claim 1.

16. Regarding claim 6, Appellant argues that neither Ha nor Itoh teach or suggest initiating a firmware upgrade without administrator intervention based on the device ID and in addition Ishibashi does not cure this defect and refer to the arguments with regard to claim 1. The Examiner does not agree. As shown above Ha teaches initiating a firmware upgrade without administrator intervention based on the device ID. As such, Ha is rejected for the same reasons as in the rejection of claim 1. Ishibashi is relied upon to teach a device ID stored on a non-volatile machine usable storage media (the device ID is stored on a BIOS-ROM and managed by a BIOS, col. 6 lines 17-35 and figure 2).

17. Further regarding claim 6, Appellant also argues that the combination of Ha and Itoh with Ishibashi is improper because Ishibashi requires an ID obtain request. The Examiner does not disagree with the Appellants on this point. However, Ishibashi is relied upon to teach a device ID stored on a non-volatile machine usable storage media while Ha is used to teach initiating a firmware upgrade without administrator intervention based on the device ID.

18. Regarding claims 8, 9 and 11, Appellant does not specifically argue these claims and instead relies upon the arguments of claims 1 and 6. As such, they are rejected for the same reasons and responses to the arguments as set forth in the rejections of claims 1 and 6.

19. Regarding claim 74, Appellant does not specifically argue these claims and instead relies upon the arguments of claims 6 and 69. As such, they are rejected for the same reasons and responses to the arguments as set forth in the rejections of claims 6 and 69.

20. Appellant argues in substance, with regard to claim 14 that combination with Treu is improper since Treu does not cure the alleged defect that Ha does not teach or suggest initiating a firmware upgrade without an administrator based on the device ID. The Examiner disagrees. As set forth hereinabove, Ha does teach or suggest initiating a firmware upgrade without an administrator based on the device ID, therefore the combination of Ha, Itoh and Treu is proper. Treu is used only to teach the limitation of a communication device (a personal computer 10, figure 1) having an ID that uniquely (system unique ID, col. 6, lines 51-55) identifies the communication device. Secondly, the ID that uniquely identifies a communication device as taught by Treu provides the advantage of allowing specific vital product data function to be provided for the specific device ("resource characteristics of functions associated with product or an indication that the resources are not known or not supported", col. 6, line 32-55) and this would be desirable in Ha.

21. Regarding claim 31, Appellant does not specifically argue claim 31 and merely relies upon the arguments of claims 1 and 6. As such, claim 31 is rejected for the same reasons as set forth in the rejection and response to arguments of claims 1 and 6.

22. Appellant further argues in substance, with regard to claims 20 and 24 that impermissible hindsight is used. The Examiner disagrees. For the rejection of these claims the Examiner refers to the Background of the instant application at paragraphs [0003] and [0004] where it is taught that rack chassis using management capability of a line card chassis is an advantage. In the

rejection the Examiner relied upon the part of the disclosure that is admitted prior art. Therefore, this is not impermissible hindsight.

23. Regarding claims 21-22 and 25-26, Appellant does not specifically argue these claims, but relies upon arguments with respect to claim 20. As such, claims 21-22 and 25-26 are rejected for the same reasons set forth hereinabove in the rejection and response to arguments of claim 20.

24. Regarding claim 24, Appellant does not specifically argue this claim and instead relies upon arguments presented to claims 1, 6 and 20. As such, claim 24 is rejected with the same reasoning as in the rejection and response to arguments as in claims 1, 6, and 20.

25. Regarding claims 34, Appellant argues with regard to claim 34, that "the Examiner has failed to establish a sufficient showing why Ha suffers from the need to optimize data transfer for users that typically receive much more information than they receive resulting in optimized data transfer" in the combination with Comer. It is noted that the rejection has typographical error. The rejection stated:

> "One of ordinary skill in the art would have been motivated to make the modification in order to optimize data transfer for users that typically receive much more information than they ***receive*** resulting in optimized data transfer".

The rejection should state:

> "One of ordinary skill in the art would have been motivated to make the modification in order to optimize data transfer for users that typically receive much more information than they ***send*** resulting in optimized data transfer".

In sum, it is noted that second occurrence of "receive" should have been "send" instead of "receive" as was intended and should have been evident upon reading Comer in the highlighted portion of text on page 156 where Comer states:

> "ADSL is a local loop technology that is optimized for typical users who receive much more information than they ***send***. To accommodate such use, ADSL provides a higher bit rate downstream (i.e. to the subscriber) than upstream (i.e. from the subscriber to the provider)."

The Examiner disagrees with the arguments of the Appellant. Ha discloses initializing a communication device from routines stored on a boot PROM (executing a POST for a computer from the BIOS ROM, col. 5, lines 5-16). However, Ha does not explicitly disclose wherein the communication device is an ADSL communications device. Comer discloses that most users receive more information then they send and ADSL would provide the advantage of optimized data (page 156, fourth and fifth paragraph and page 515). In Ha, there are multiple computers that download data (PC1-PCn), such as the firmware. These computers of Ha would be subscribers as taught by Comer while the HOST of Ha would be a provider. Therefore, in Ha many more computers receive more information (software is downloaded to a computer in response to an ID) than they send. Thus, it would have been obvious to one of ordinary skill in the art, having the teachings of Ha and Comer before them at the time the invention was made to modify Ha to use an ADSL communication device as his communication device. Comer teaches that in most communication systems users receive (the subscribers of Comer) more information then they send they would benefit by using ADSL communication devices. Thus, the system of Ha would also benefit from using ADSL devices.

26. Regarding claims 34-37 and 39-40, Appellant does not specifically argue these claims but relies upon the arguments with respect to claim 34. As such, claims34-37 and 39-40 are rejected for the same reasons as set forth for claim 34.

27. Regarding claim 38, Appellant states that claim 38 further includes "wherein the boot PROM" and device ID are stored on a single machine readable storage medium of the ADSL

communication device. However, Appellant does not specifically argue these claims but relies arguments with respect to claims 1, 6, and 34. As such, claim 38 is rejected for the same reasons as set forth in the rejection and response to arguments for claims 1, 6 and 34.

**(11) Related Proceeding(s) Appendix**

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

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